REMARKS

INTRODUCTION

In accordance with the foregoing, claims 1, 6, 13, and 16 have been amended. No new matter is being presented, and approval and entry are respectfully requested.

Claims 1, 3, and 5-16 are pending and under consideration. Reconsideration is respectfully requested.

ENTRY OF RESPONSE UNDER 37 C.F.R. §1.116

Applicant requests entry of this Rule 116 Response and Request for Reconsideration because the amendment of claims 1, 6, 13, and 16 should not entail any further search by the Examiner since no new features are being added or no new issues are being raised. The amendments do not significantly alter the scope of the claims and place the application at least into a better form for appeal, and no new features or new issues are being raised.

The Manual of Patent Examining Procedures sets forth in §714.12 that "[a]ny amendment that would place the case either in condition for allowance or in better form for appeal may be entered." (Emphasis added.) Moreover, §714.13 sets forth that "[t]he Proposed Amendment should be given sufficient consideration to determine whether the claims are in condition for allowance and/or whether the issues on appeal are simplified." The Manual of Patent Examining Procedures further articulates that the reason for any non-entry should be explained expressly in the Advisory Action.

REJECTION UNDER 35 U.S.C. §103(a)

In the Office Action at page 2, claims 1, 3, 5-9 and 11-16 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,003,498 to Ota, et al. in view of U.S. Patent No. 5,701,403 to Watanabe, et al. The reasons for the rejection are set forth in the Office Action and therefore not repeated. The rejection is traversed and reconsideration is requested.

Independent claim 1 is directed to a computer-aided design (CAD) system having a modeling mechanism that uses both two-dimensional and three-dimensional views of a solid object in an integrated manner. In relevant part, independent claim 1 has been amended to recite that the CAD system includes "two-dimensional drawing generating means for generating a plurality of orthographic projection views representing a three-dimensional model being

defined by performing Boolean operations between a plurality of three-dimensional geometric features, and maintaining a projection view database associating graphic elements contained in said generated plurality of orthographic projection views with corresponding three-dimensional geometric features." Independent claims 6, 13, and 16 have been similarly amended. Support for these claim amendments can be found in the originally filed Specification, at least, for example, at page 11, line 15, to page 12, line 2.

The Office Action appears to take the position that databases 4, 7, and 9 shown in Fig. 2 of Watanabe, et al. can be equated with the projection view database of the independent claims. Applicant respectfully disagrees, as Watanabe, et al. fails to specifically teach the content of databases 4, 7, and 9.

Applicant has amended independent claims 1, 6, 13, and 16 to clarify that the term "three-dimensional geometric feature," as used in the present invention, describes features that are structured "such that a desired object will be obtained by applying Boolean addition, subtraction, and multiplication operations to a plurality of features." Specification at page 11, lines 23-26. Applicant respectfully submits that, according to the present invention, a three-dimensional geometric feature is not merely a line segment or point, as in Watanabe, et al., but a solid object formed from a plurality of geometric elements.

In a non-limiting example, according to the present invention, the projection view database manages relationships between graphic elements (for example, objects a, b, c, d in Fig. 3) in an orthographic projection view and three-dimensional geometric features (for example, features α and β in Fig. 3). The projection view database, therefore, permits a three-dimensional geometric feature to be selected by selecting, for example, a line segment in a two-dimensional orthographic projection view. Watanabe, et al., however, merely teaches one-to-one associations between line segments in a two-dimensional drawing and those in a three-dimensional model.

As the Office Action at page 3 acknowledges that "Ota, et al. fails to explicitly teach maintaining a projection view database about associations between graphic elements contained in said generated plurality of orthographic projection views and the 3D geometric features," Applicant respectfully submits that Ota, et al. fails to cure the deficiencies of Watanabe, et al. noted above. Thus Ota, et al. and Watanabe, et al., whether taken alone or in combination, fail to teach all of the features of amended independent claims 1, 6, 13, and 16, and those claims depending directly or indirectly therefrom. Accordingly, Applicant respectfully submits that claims 1, 6, 13, and 16, and those claims depending directly or indirectly therefrom, patentably distinguish over the prior art and are in condition for allowance.

In the Office Action at page 8, claim 10 was rejected under 35 U.S.C. §103(a) as being unpatentable over Ota, et al. and Watanabe, et al. in view of Foley, et al. (Computer Graphics: Principles and Practice). The reasons for the rejection are set forth in the Office Action and therefore not repeated. The rejection is traversed and reconsideration is requested.

Applicant respectfully submits that Foley, et al. fails to cure the deficiencies of Ota, et al. and Watanabe, et al. set forth above with respect to amended independent claim 1, from which claim 10 depends. Thus, Applicant respectfully submits that Ota, et al., Watanabe, et al., and Foley, et al., whether taken alone or in combination, fail to teach or suggest all of the features of dependent claim 10 for at least the reasons set forth above with respect to amended independent claim 1. Accordingly, Applicant submits that dependent claim 10 patentably distinguishes over the prior art for at least the same reasons as amended independent claim 1 and, therefore, is in condition for allowance.

CONCLUSION

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot. And further, that all pending claims patentably distinguish over the prior art. Thus, there being no further outstanding objections or rejections, the application is submitted as being in condition for allowance which action is earnestly solicited. At a minimum, this Amendment should be entered at least for purposes of Appeal as it either clarifies and/or narrows the issues for consideration by the Board.

If the Examiner has any remaining issues to be addressed, it is believed that prosecution can be expedited and possibly concluded by the Examiner contacting the undersigned attorney for a telephone interview to discuss any such remaining issues.

If there are any underpayments or overpayments of fees associated with the filing of this Amendment, please charge and/or credit the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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